



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 5

77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

DEC 10

REPLY TO THE ATTENTION OF: WW-16J

U.S. Army Corps of Engineers, Louisville District  
ATTN: Ann M. Nye, CELRL-OP-FW  
P.O. Box 489  
Newburgh, Indiana 47629-0489

Re: Public Notice No. LRL-2007-1298

Dear Ann:

The United States Environmental Protection Agency has reviewed the subject public notice issued on November 12, 2009. The applicant, Gibson County Coal LLC (GCC), proposes to expand the refuse disposal facility for the Gibson North Mine in Gibson County, Indiana northwest of the City of Princeton. The proposed project would impact 7,640 linear feet of stream and 0.14 acre of wetland within the Patoka River Watershed.

EPA has also reviewed documents titled "Gibson County Coal, LLC DNR Permit No. U-022-5: 404 Permit Application Supporting Information October 2009," "Gibson County Coal, LLC DNR Permit No. U-022-5: 2009 Mitigation Plan October 2009," and "Gibson County Coal, LLC DNR Permit No. U-022-5: Jurisdictional Steams and Wetlands Determinations October 2009." We offer the following comments/questions based on our review:

**Permit Application**

- According to the applicant, "the mine produces approximately 5 million tons of raw coal per year and presently controls sufficient reserves to support that level of coal production for an additional 10 years" (page 6). On page 26, it is noted that the expansion of the existing operation is anticipated to extend the life of the storage facility by at least 15 years. On page 1 of the Mitigation Plan, there is information that the expansion project will extend the life of the facility by 8.5 years. The applicant must explain why their numbers appear to be inconsistent. What is the projected life of the mining operation? What is the remaining capacity of the existing impoundment? How much additional capacity would the expansion provide? The applicant should very clearly demonstrate the need to expand the existing impoundment.
- The applicant should expand their discussion regarding the placement of refuse material along of the east side of the impounding structure downstream of the toe

on page 9. It is unclear why the applicant needs to use that location for coarse refuse disposal. Please explain when placement of coarse refuse in the dam or combined refuse underground injection is not feasible.

- On page 8, GCC states “when authorized by the approved DNR mining permit, the proposed operation will permanently impact a total of 5,580 linear feet of stream ...” As you know, the DNR mining permit does not in any way authorize impacts to “waters of the United States.” GCC should edit this portion of their permit narrative to reflect that Clean Water Act Section 404 and Section 401 permits are required to impact such waters.
- Is the applicant currently using a liner underneath the existing impoundment? If not, what measures are being taken to protect ground water from contamination?
- Generally, how will the impoundment be dewatered, graded, and capped after mining has concluded?
- The applicant has stated that 2,060 linear feet of the total 7,640 linear feet of stream impacts would be temporary in nature. How will GCC minimize impacts to these stream segments during mine operation? They are susceptible to receiving a significant sediment load over the life of the operation.
- As you know, the 404 (b)(1) Guidelines require that the applicant demonstrate there are no practicable alternatives available that would have a less adverse impact on the aquatic environment for non-water dependant activities. The guidelines presume that less damaging upland alternatives are available for these activities unless demonstrated otherwise by the applicant. The applicant must follow a sequence of steps to be in compliance with the 404 (b)(1) Guidelines; which include avoidance, minimization, and compensation for unavoidable impacts. EPA recommends that the applicant provide better documentation of avoidance and minimization efforts so that we may evaluate compliance with the 404(b)(1) Guidelines. At present, references to avoidance and minimization are vague.

### **Jurisdictional Streams and Wetland Determination**

- Does the Corps find the use of the Mississippi Valley Interior Region Bioregion Calculator Version 2003.10 an acceptable means to calculate the functional value of streams for this project? How are the sub-index values calculated from the actual habitat scores and specific conductivity readings? Is the methodology peer reviewed?
- As you know, intermittent streams are not necessarily precluded from being Relatively Permanent Waters (RPW's). Does the Corps agree with the applicant that all the waters proposed for impacts are non-RPW's?
- A number of macroinvertebrate studies have been conducted on intermittent stream reaches. The applicant should conduct biological monitoring of the streams on-site at the appropriate time.
- EPA recommends that GCC provide data/rationale for how they arrived at the Rosgen stream type for each of the assessed stream segments.

## Mitigation Plan

- The applicant must thoroughly document the reasons they are proposing mitigation outside of the Patoka River watershed.
- Water Quality-Why was the water quality not quantified or qualified within the area of impact? SMCRA requires the applicant to sample water quality/conduct a hydrologic inventory for particular parameters such as pH, total alkalinity, total acidity, total iron, total manganese, aluminum, chloride, sulfate, etc., to gather baseline data.
- Identification of Potential Challenges- A contingency plan or remedial action plan should be developed that outlines potential problems that may be encountered during mitigation activities and proposed remedial actions. Additionally, procedures must be established for identifying, reporting, and implementing remedial actions according to specific timelines (if necessary). The broad discussion about contingency planning assumes that problems are not likely to arise or that they will be addressed as they are encountered. EPA recommends a more robust pre-planning effort to help ensure the success of mitigation.
- Financial Assurances-Financial assurances must be addressed before the Section 404 permit is issued. Assurances for compensatory wetland and stream mitigation for 404 purposes are separate and distinct from those required by SMCRA. GCC must include details on the dollar amount, type(s) of assurance (ex. performance bond, letter of credit) and release conditions. The account must be payable to a designee of the Corps or a standby trust agreement. Estimates of the construction, monitoring, and maintenance costs of mitigation activities will be necessary. The Corps cannot evaluate whether the financial assurances are sufficient to cover potential mitigation inadequacies without this type of information.
- Mitigation Work/Implementation-The applicant should describe and illustrate what the current discharge point of the mitigation area is and how the same discharge point would be maintained.
- The applicant should provide more information about the reference reach used to determine the mitigation design, for example, information on why it was selected as a reference reach, where it's located, what functional or biological assessments were conducted on the stream and what Rosgen stream type it is.
- EPA recommends that biological monitoring be conducted on created stream reaches and included as a permit condition to ensure that macroinvertebrate communities become established.
- Stream hydrology-The applicant must provide information about how the created reaches will achieve the appropriate flow regime. For example, they need to show that the created intermittent streams channels will achieve intermittent flow and identify sources of hydrology.
- Hydrology standard for wetlands- The previous monitoring standard of inundation or saturation for at least 5% of the growing season is no longer used under the Midwest Supplement to the 1987 Wetland Delineation Manual. The Corps of Engineers Technical Standard for Hydrology (2005) requires, "14 or more consecutive days of flooding or ponding, or a water table 12 in. (30 cm) or less below the soil surface, during the growing season at a minimum frequency of 5

years in 10 (50 percent or higher probability) unless an alternative standard has been established for a particular region or wetland type."

- Success Criteria for stream and wetland water quality-What type of information will be provided to the Indiana Department of Environmental Management? Will similar information be provided to the Corps?
- Monitoring Reports-The applicant must monitor the mitigation site for a minimum of 5 years regardless of the type of tree stock used.

EPA objects to the issuance of a permit for this project unless the above-listed items are adequately addressed. Please notify us of GCC's response to these comments and any changes to the permit application. Thank you for the opportunity to provide comments on the public notice and permit documents. If you have any questions please contact Melissa Gebien at (312) 886-6833.

Sincerely,



*for* Thomas Davenport, Acting Branch Chief  
Watersheds and Wetlands Branch